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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,863	08/08/2001	Huima Antti	930.334USW1	2899

32294 7590 06/22/2004

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EXAMINER

GESESSE, TILAHUN

ART UNIT	PAPER NUMBER
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2684

DATE MAILED: 06/22/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/924,863

**Applicant(s)**

ANTTI, HUIMA

**Examiner**

Tilahun B Gesesse

**Art Unit**

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) 1-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 33-63 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This is in response to applicant's response filed April 22, 2004, in which claims 33 through 63 are pending.
2. As to objection of claim 41, upon applicant's amendment to claim 41, and request for withdrawal of the objection, the request for withdrawal is acknowledged.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 33-43,49,54-56,58-63 are rejected under 35 U.S.C. 102(b) as being anticipated by Yahagi (5,642,401).

As to claims 33,62-63 Yahagi discloses a method of securing communication (fig.1) between a first party (mobile station 1) and a second party in a telecommunication network (network) comprising: defining a criteria for selecting one of a plurality of different security methods (column 2, lines 7-24), the plurality of security methods each comprising a plurality of messages selected from a set of messages types at least two different security method having at least one message in common (column 3, lines 1-28), selecting one of the said plurality of different security methods in accordance with said defined criteria and performing said security method(the steps as taught in column 3 lines 1-28).

At to claim 34, Yahagi discloses the criteria are to select the security method is selected at random (column 3 lines 58-column 4, line 4).

As to claim 35, Yahagi discloses processing capability of the first and second party (mobile and BS/MSC/DB, column 2 lines 55-68 and figure 6).

As to claim 36, Yahagi inherently discloses select the security based on the amount of time since last security method was perfumed.

As to claim 37, Yahagi discloses security method is based on the function provided by the security method (authentication calculation result "function" (figure 3).

As to claim 38, Yahagi discloses the plurality of security methods comprising at least one authentication method or at least one rekeying method (figure 3).

As to claim 39, Yahagi inherently discloses at least one authentication method includes a key exchange to create a shared secret.

As to claims 40 and 42,58-59 Yahagi discloses a rekeying method is performed after an authentication method (column 3, lines 60-67).

As to claim 41 and 43, Yahagi discloses the set of messages includes at least one random number message (column 3, lines 60-67 and figure 1).

As to claim 49, Yahagi discloses the security method is a first rekeying method and comprising first and second random number message (using random number at the mobile station, authentication calculation and using random number at the data base , authentication result, (figure 3 and it's disclosure).

As to claim 54, Yahagi discloses one message being from the first party and the other message being from the second party ( figure 3, and it's disclosure).

As to claim 55, Yahagi inherently discloses the encoding message is used for transfer information as to the identity of at least one of the first and second parties to the other of the first and second parties.

As to claim 56, Yahagi inherently discloses at least one of said first and second parties is arranged to communicate with a trusted third party and is arranged to receive messages from and/or send messages to that trusted third party.

As to claim 60-61, Yahagi discloses at least one of the first and second stations comprise a mobile station and a base station (figure 1).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yahagi in view of Brown et al (5,537,474).

As to claim 57, Yahagi does not disclose exchanging message between two parties permits a shared secret to be created, which is used to authenticate the communication between the parties. However, Brown et al disclose exchanging message between two parties permits a shared secret to be created which is used to authenticate the communication between the parties (column 4, lines 14-27). Since , Yahagi , with similar art of endeavor, discloses secret key for authenticating a mobile station, then it would have been obvious to one of ordinary skill in the art at the time of

invention was made to combine Yahagi and Brown in authenticating a mobile station using a shared secret data, as taught by Brown, in order to identify the user based on shared secret technique authenticating the user.

***Allowable Subject Matter***

7. Claims 44-48 and 50-53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to disclose security set of message types: one signature function message type; two security parameter messages; two random number messages; one encoded signature function message; one encoded user identification message; two parameters for use with given function messages; two harsh function messages. The limitation in conjunction with independent claim has not been neither disclosed nor rendered obvious of prior art of record.

***Response to Arguments***

8. Applicant's arguments filed 4/22/04 have been fully considered but they are not persuasive.

On pages 14-15, third through first paragraphs of response applicant argued that yahagi' 401 does not discloses or suggests defining a criteria for selecting a on of a plurality of different security methods and at least two different security methods at least one message in common and selecting one of the plurality of different security methods.

The examiner disagrees. Yahagi discloses authenticating technique based on plurality of methods such as , generating random numbers (RAND (1-n), or SRES (1-n) between the network and mobile station (figures 8 and 9, column 1, line 55-column 2, line 23). Further more, Yahagi teaches calculates a plurality of authentication calculation results (SRES 1-n) by using information  $K_i$  , authentication key of a target mobile station and plurality of random numbers RAND (1-n) generated in the AC as input parameter according to authentication algorithm A3 (column 1, lines 55-62 and column 2, lines 19-23, Yahagi teaches selects authentication results ). The fact that the plurality of different security methods is not defined or specific , does not overcome the applied prior art .

On page 15, second paragraph of response , applicant argued that criteria for selecting one of a plurality of different security methods. Yahagi teaches calculates a plurality of authentication calculation results (SRES 1-n) by using information  $K_i$  , authentication key of a target mobile station and plurality of random numbers RAND (1-n) generated in the AC as input parameter according to authentication algorithm A3 (column 1, lines 55-62 and column 2, lines 19-23, Yahagi teaches selects authentication results ). Yahagi inherently teaches criteria of selecting authenticating key or authentication calculation result to authenticate a mobile station.

On page 15, third paragraph of response applicant admitted that Yahagi '401 teaches a signal security method that utilizes a plurality of authentication random numbers and corresponding authentication calculation results.

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

### ***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ohashi et al (5,596,641) disclose authentication the mobile station and roaming network by secret key and cipher function (figure 5A).

Matsuzaki et la (5,199,070) discloses a authentication technique using public key and using secret key (abstract).



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tilahun B Gesesse whose telephone number is 703-308-5873. The examiner can normally be reached on flex.

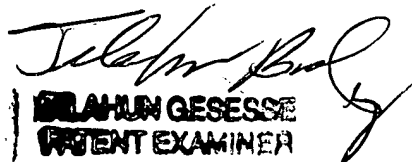
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 703-308-7745. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TBG

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June 17, 2004

  
TILAHUN GESESSE  
PATENT EXAMINER